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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/823,518	04/09/2004	Willaim David Dallenbach		3286

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EXAMINER

MAFAHER, NINA YASMIN

ART UNIT PAPER NUMBER

2855

DATE MAILED: 07/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

an

<b>Office Action Summary</b>	<b>Application No.</b> 10/823,518	<b>Applicant(s)</b> DALLENBACH ET AL.	
	<b>Examiner</b> Nina Y. Mafaher	<b>Art Unit</b> 2855	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☒ Claim(s) 2-4,6,and 7 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 4/9/2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2, 4, 5, and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Lanter (6,079,282).

With respect to Claim 1, Lanter discloses a capacitive force sensing device comprising a base member; a platform structure moveable relative to a base member in response to force applied to the platform structure; a spacer positioned between a platform structure and a base member (Column 2, lines 48-50); a variable capacitor having a first electrode affixed to a platform structure and a second electrode affixed to a base member (Column 1, lines 31-36); a capacitor configured to provide a change of capacitance upon movement of a platform structure relative to base member; and an electrical means for a variable capacitor configured to sense a changed capacitance in the variable capacitor and provide an electrical output in response (Column 2, lines 62–67 & Column 3, lines 1-3).

With respect to Claim 2, Lanter discloses a spacer made of steel (Column 1, lines 11-14).

With respect to Claims 4 and 5, Lanter discloses a spacer that deflects perpendicularly to the direction of the applied load (Column 3, lines 59 – 62) and a spacer that deflects in the direction of the applied force (Column 2, lines 63 – 64).

With respect to Claim 9, Lanter discloses the use of multiple spacers (Column 4 line 34 & Column 5, lines 46-47).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 3 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lanter (6,079,282) in view of Gray (6,026,694).

With respect to Claim 3, Lanter teaches the invention set forth above and further teaches a spacer (Column 2, lines 59-61). Lanter lacks the spacer being perforated. Gray teaches a force sensing device wherein a spacer is perforated (Column 8, lines 34-35). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the spacer of Lanter with that of Gray for the purpose of coupling together a base member and platform structure, since a perforation in the spacer would allow a connecting rod to be extended through (Column 3, lines 46-52).

With respect to Claim 8, Lanter teaches the invention set forth above and further teaches a spacer that deflects perpendicularly to the direction of a force (Column 3,

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lines 59-62). Lanter fails to teach the spacer's perpendicular deflection to not touch any platform surface. Gray teaches a spacer that deflects perpendicularly and its deflection does not touch any surface (Column 5, lines 62-64). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the spacer of Lanter with that of Gray for the purpose of preventing contact with platform surfaces, since the lack of physical constraint to the perpendicular deflection of the spacer improves the linear relationship between force and distance deformed, or signal produced (Column 5, lines 64-67).

5. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lanton (6,079,282) in view of Todd (3,121,328).

With respect to Claims 6 and 7, Lanter teaches the invention set forth above and further teaches a spacer (Column 2, lines 59-61). Lanter lacks the spacer having the shape of a Belleville spring; and the spacer being two Belleville springs placed base to base. Todd teaches a set of two Belleville springs with the concave portions arranged in a face-to-face relationship (Column 2, lines 50-55; Figure 2a, #41, #41a, #41b). It would have been obvious to one of ordinary skill in the art at the time the invention was made for the purpose of a compression unit providing compact spring components capable of absorbing high loads within limited space with small deflection, since it has been determined that a series of Belleville washers assembled in pairs with the washers in each group arranged with the concave portions in face-to-face relationship, will act effectively as a spring under a compressive force. More importantly, the spring action of

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a series of washers so arranged is linear in relation to the compressive force applied (Column 2, lines 56 – 60 & lines 63-65; Column 3, lines 1-6).

### ***Drawings***

6. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 130, 170, 260, 310, 350, 370, 420, and 560. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

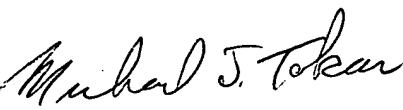
### ***Claim Objections***

7. Claims 2 - 4, 6, and 7 are objected to because of the following informalities: The claims are not in accordance with 37 CFR 1.75(f) which requires claims to be numbered in Arabic numerals. Appropriate correction is required.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

NYM.

  
**Michael Tokar**  
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